



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

March 12, 2015

Ms. Julie Porter
AMVAC Chemical Corporation
4695 MacArthur Court, Suite 1200
Newport Beach, CA 92660

Subject: Label Notification per PRN 98-10 – Alternate brand name and additional turf disease
Product Name: Turfcide 4F
EPA Registration Number: 5481-8992
Application Date: February 18, 2015
Decision Number: 500521

Dear Ms. Porter:

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice (PRN) 98-10 for the above referenced product. The Registration Division (RD) has conducted a review of this request for its applicability under PRN 98-10 and finds that the action requested falls within the scope of PRN 98-10.

The label submitted with the application has been stamped "Notification" and will be placed in our records. The alternate brand name *Autilus* has been added to the product record.

If you have any questions, you may contact Heather Garvie at 703-308-0034 or via email at garvie.heather@epa.gov.

Sincerely,

A handwritten signature in black ink, appearing to be "HJ", is located below the word "Sincerely,".

Hope Johnson, Product Manager 21
Fungicide Branch
Registration Division (7505P)
Office of Pesticide Programs

03/12/2015

Turfcide® 4F

[ABN Blocker 4F, Turfcide 400, Terraclor 400, Autilus]

FLOWABLE TURF, ORNAMENTAL, AND AGRICULTURAL CROP FUNGICIDE

ACTIVE INGREDIENT: (% by weight)

Pentachloronitrobenzene (PCNB)..... 40.0%

INERT INGREDIENTS:..... 60.0%

TOTAL: 100.0%

Contains 4 lbs. of Pentachloronitrobenzene per U.S. gallon

Contains petroleum distillates, xylene or xylene range aromatic solvents

KEEP OUT OF REACH OF CHILDREN CAUTION

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.
(If you do not understand the label, find someone to explain it to you in detail.)

FIRST AID	
If in eyes:	<ul style="list-style-type: none"> • Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.
If on skin or clothing:	<ul style="list-style-type: none"> • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
If Inhaled:	<ul style="list-style-type: none"> • Move person to fresh air. • If person is not breathing, call 911 or an ambulance, and give artificial respiration, preferably mouth-to-mouth if possible. • Call a poison control center or doctor for further treatment advice.
If swallowed:	<ul style="list-style-type: none"> • Immediately call a poison control center or doctor. • Do not induce vomiting unless told to do so by a poison control center or doctor. • Do not give any liquid to the person. • Do not give anything by mouth to an unconscious person.

EMERGENCY INFORMATION

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

FOR THE FOLLOWING EMERGENCIES, PHONE 24 HOURS A DAY:

For Medical Emergencies phone:.....1-888-681-4261

For Transportation Emergencies, including spill, leak or fire, phone: CHEMTREC®1-800-424-9300

For Product Use Information phone : AMVAC®1-888-462-6822

NOTE TO PHYSICIAN

Contains petroleum distillate. Vomiting may cause aspiration pneumonia.

SEE SIDE/BACK PANEL FOR ADDITIONAL PRECAUTIONARY STATEMENTS AND DIRECTIONS FOR USE.

EPA Reg. No. 5481-8992

NET WEIGHT: ____Lbs.

EPA Est. No. _____



4100 E. Washington Blvd.
Los Angeles, CA 90023 U.S.A.
1-888-462-6822

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION: Causes moderate eye irritation. Harmful if absorbed through the skin or inhaled. Avoid contact with skin, eyes or clothing. Avoid breathing vapor or spray mist.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for Category E on an EPA chemical resistance category selection chart.

Applicators and other handlers (other than mixers and loaders) must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves such as barrier laminate, or nitrile rubber, or neoprene rubber or viton
- Shoes plus socks

Mixers and Loaders Must Wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves such as barrier laminate, or nitrile rubber, or neoprene rubber or viton
- Shoes plus socks
- For exposures in enclosed areas: A respirator with an organic vapor-removing cartridge with a prefilter approved for pesticides (MSHA/NIOSH approval number prefix TC-23C), or a canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G) or a NIOSH approved respirator with an organic vapor (OV) cartridge or canister with any N, R, P, or HE prefilter.
- For exposure outdoors: Dust/Mist filtering respirator (MSHA/NIOSH approval number prefix TC-21C), or a NIOSH approved respirator with any N, R, P or HE filter.

When handlers use closed systems or enclosed cabs in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

User Safety Requirements

Follow manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

USER SAFETY RECOMMENDATIONS

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS

This pesticide is toxic to fish and aquatic organisms. Drift and runoff from treated areas may be hazardous to fish and aquatic organisms in adjacent aquatic sites. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment wash waters.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), and restricted-entry intervals. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 12 hours.

Exception: if the product is soil-injected or soil-incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Coveralls
- Chemical-resistant gloves such as barrier laminate or nitrile rubber, or neoprene rubber, or viton
- Shoes plus socks

Non-Agricultural Use Requirements

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses. Do not enter or allow others to enter treated areas until area has been irrigated and turf has dried.

APPLICATION INFORMATION

Turficide 4F is a preventive fungicide labeled for control of certain soil borne diseases of non-residential turf (golf course tees, greens and fairways, sod farms, industrial parks, and professional and college athletic fields), ornamentals, and agricultural crops. Best results are achieved when used in a preventive program. Follow specified rates and application directions. Carefully read, understand and follow label directions.

Restrictions

- Use of Turficide 4F is prohibited on
 - golf course roughs;
 - residential sites including lawns, yards, and ornamental plants and gardens around homes and apartments;
 - grounds around day care facilities;
 - school yards;

- parks (except industrial parks);
 - playgrounds; and
 - athletic fields (except professional and college athletic fields under the conditions listed below).
- Do not apply this product by air.
- Chemigation or pesticide applications through irrigation systems are only permitted for ornamentals and foliar potato applications. Do not apply this product to any other crops through any type of irrigation systems.
- Do not graze treated areas or feed clippings to livestock.
- Turfcide 4F may only be used on professional and college athletic fields for the following diseases: gray snow mold and pink snow mold. See Use and Rate Requirements for Non-Residential Turf table for additional information.
- For all Non-Residential Turf use applications, Mixers and Loaders cannot handle more than 150 gallons product per day (equivalent to 600 lbs. A.I. /day).
- For Cole Crop applications, Mixers and Loaders cannot handle more than 150 gallons product per day (equivalent to 600 lbs. A.I. /day). Applicators cannot apply more than 337 gallons of product per day (1,350 lbs. A.I. /day)
- For Chemigation applications to potatoes, Mixers and Loaders cannot handle more than 150 gallons of product per day (equivalent to 600 lbs. A.I. /day).
- Do not plant root crops in PCNB treated fields within 12 months of the last application of PCNB unless PCNB is registered for use on those crops.
- Use of any hand-held application equipment is prohibited except for greenhouse use.
- Apply by ground boom application only except for greenhouse use.
- Airblast application may be used on Southern Magnolia Trees, applicators cannot handle more than 4.5 gallons of product per day (18 lbs. A.I. /day).
- For Sod farm applications, applicators cannot handle more than 425 gallons of product per day (equivalent to 1,700 lbs. A.I. /day).
- For Non-Residential Ornamentals (Woody Plants, Southern Magnolia Trees, Southern Pine Seed and Seedlings, Vegetable Bedding Plants:
 - Groundboom, airblast, and chemigation applications: mixers/loaders cannot handle more than 190 gallons of product per day (equivalent to 760 lbs. A.I. /day).
 - Groundboom applicators cannot handle more than 425 gallons of product per day (equivalent to 1,700 lbs. A.I. /day).
 - Soil drench mixer/loader/applicators cannot handle more than 0.42 gallons product per day (equivalent to 1.68 lbs. A.I. /day).
- For Garlic and Peanut applications, mixers/loaders cannot handle more than 190 gallons of product per day (equivalent to 760 lbs. A.I. /day).
- For Peppers and Tomatoes, mixers/loaders/applicators cannot handle more than 0.42 gallons product per day (equivalent to 1.68 lbs. A.I. /day).
- For Vegetable Bedding Plants, applicators cannot handle more than 1 pint product per 1000 square feet (equivalent to 20.4 lbs. A.I. /Acre) per season.

COMPATIBILITY

For broad spectrum disease control, this product can be tank mixed with compatible products. Follow more restrictive labeling or precautions on the label of any tank mix product. Do not exceed dosage rates on any label. This product cannot be mixed with any product containing a label prohibition against such mixing. Do not tank mix with other chemicals unless prior use has proven compatibility.

TURF

Turfcide 4F is a fungicide for the prevention and control of certain soil borne diseases on

- golf course tees, greens, and fairways,
- sod farms, and industrial parks and professional and college athletic fields where turf is grown.

Restrictions: Turfcide 4F may only be used on professional and college athletic fields for the following diseases: gray snow mold and pink snow mold. See the Use and Rate Requirements for Turf table for additional directions for professional and college athletic fields.

For best results use Turfcide 4F as a preventive application before diseases appear, however, if you do not apply as a preventive treatment, then apply Turfcide 4F at first sign of disease.

Following application, water areas treated with Turfcide 4F in order to move material down to the soil level. If treated area is subjected to flooding or unusually heavy rainfall, or if disease is severe or reappears, treat the area again.

See Use and Rate Requirements for Non-Residential Turf table for retreatment intervals.

Under certain growing conditions, a temporary discoloration of the grass may occur. This causes no harm and will disappear in a short time.

USE AND RATE REQUIREMENTS FOR NON- RESIDENTIAL TURF*

DISEASE	TURF TYPE	FL. OZ. PRODUCT PER 1000 SQ. FT	APPLICATION DIRECTIONS
Brown Patch (<i>Rhizoctonia solani</i>)	Warm climate grasses such as: St. Augustine Bermuda	16 to 24	Mix specified amount in 1 to 10 gals of water and apply a single application in the Spring or Fall at first indication of disease. If disease is severe or reappears, retreat area 3 to 4 weeks later. After application, immediately irrigate with 1/4 inch water.
	Dichondra	16 to 24	Mix specified amount in 5 to 10 gals of water and treat as above. After application, immediately irrigate with 1/4 inch water.
Brown Patch (<i>Rhizoctonia solani</i>) Anthracnose (<i>Colletotrichum cereal</i>)	Cool climate grasses such as: Bluegrass Ryegrass Fescue Bent	5 to 6	Mix specified amount in 1 to 10 gals of water and apply at first sign of disease. Repeat every 7 to 10 days during warm, damp weather. For control of existing infections, apply at specified higher rates as soon as symptoms appear.

DISEASE	TURF TYPE	FL. OZ. PRODUCT PER 1000 SQ. FT	APPLICATION DIRECTIONS
			<p>Do not apply at daytime temperatures of 85° or higher.</p> <p>After application, immediately irrigate with 1/4 inch water.</p> <p>Mowing may not occur in treated area until one day after application.</p>
<p>Melting Out/ Leaf Spot** (<i>Drechslera</i> <i>spp.</i>, <i>Biopolaris</i> <i>spp.</i>, <i>Exserohilum</i> <i>spp.</i>) Dollar Spot** (<i>Sclerotinia</i> <i>homeocarpa</i>)</p>	All	11 to 16	<p>Mix specified amount in 1 to 10 gals of water and apply as a preventive application in the spring or fall of each year.</p> <p>For control of existing infections, apply at specified higher rates as soon as symptoms appear.</p> <p>Do not apply at daytime temperatures of 85°F or higher.</p> <p>After application, immediately irrigate with 1/4 inch water.</p> <p>Mowing may not occur in treated area until one day after application.</p>
<p>Gray Snow Mold*** (<i>Typhula spp.</i>) Pink Snow Mold*** (<i>Microdochium</i> <i>nivale</i>)</p>	Cool climate grass	12 to 16	<p>Mix specified amount in 1 to 10 gals of water and apply one application prior to first snowfall or when temperatures remain below 60°F and extended wet conditions are expected.</p> <p>In the absence of snow cover, supplemental applications of 3 to 6 fl. oz. can be applied at 4 to 6 week intervals to maintain control when disease pressure is severe.</p> <p>Note: Turfcide 4F must be moved into the soil thatch layer to be effective.</p> <p>Applications must be followed by 1/4 inch of irrigation water or rainfall on day of application. If sufficient rainfall does not occur on day of application, then treated areas must be irrigated with 1/4 inch of water on day of application.</p>

*For all Non-Residential Turf use applications, Mixers and Loaders cannot handle more than 150 gallons product per day (equivalent to 600 lbs. A.I. /day). Single applications must not exceed 33 lbs. A.I. /A, and total seasonal applications must not exceed 66 lbs. A.I. /A.

** Use not registered by California Department of Pesticide Registration

***Conditions under which professional and college athletic fields may be treated:

- applications are limited to Fall and Winter months for pink or grey snow mold;
- no more than 3 applications may be made per season (October – March), with a minimum of 14 days between applications;
- applicators must ensure that the treated area will be idle for at least 2 days after application.

ORNAMENTALS

Turfcide 4F can be used as a soil treatment for protection against a variety of soil borne diseases in

- greenhouse,
- shadehouse,
- nursery,
- landscape and
- field grown ornamentals.

Use of Turfcide 4F is prohibited on ornamental plants in

- residential settings including lawns, yards, gardens around homes and apartments;
- grounds around day care facilities;
- school yards;
- parks (except industrial parks);
- playgrounds; and
- athletic fields.

Continuously agitate the mixture of Turfcide 4F and water to assure uniform application.

Drench the soil thoroughly with Turfcide 4F solution for best results.

See Use and Rate Requirements for Non-Residential Ornamentals table for specific plants and diseases.

When a rate range is shown, use the lower rate on coarse textured (light) soils or when disease pressure is expected to be low. Use the higher rates on fine textured (heavy) soils in fields with a history of disease problems, or when weather conditions are expected to be unfavorable for rapid germination and growth of seedlings.

USE AND RATE REQUIREMENTS FOR NON-RESIDENTIAL ORNAMENTALS

CROP	DISEASE	PRODUCT APPLICATION RATE	APPLICATION DIRECTIONS					
Woody Plants**	Root/Stem Rot Damping Off (<i>Rhizoctonia solani</i>) (<i>Pellicularia filamentosa</i>) Black Rot (<i>Sclerotinia sclerotiorum</i>) Dichondra	3/8 to 3/4 pints (6 to 12 fl. oz.)	SOIL DRENCH: Mix specified amount in 100 gallons of water and apply as follows:					
			BED, BENCH, CONTAINER & FIELD GROWN PLANTS					
			Depth of Soil (inches)	Quantity of Product Drench Solution				
				Fl. Oz./Sq. Ft.	(Sq. Ft./100 gals of drench solution)			
						≤ 2	16	800
						3	24	530
			≥ 4	32	400			
			POTTED PLANTS					
			Pot Diameter (inches)	Minimum Quantity of Product Drench Solution (Fl. Oz./Pot)				
			4	1.5				
5	3							
6	4							
8	7							
10	13							
12	18							
			One repeat application may be made 4 to 6 weeks following the first application.					
		5 1/4 pints (84 fl. oz.)	BROADCAST INCORPORATED PRIOR TO PLANTING IN THE FIELD: Apply specified amount to 1000 sq. ft. in sufficient water to assure uniform ground coverage. Thoroughly incorporate to a depth of 4 inches.					
Gladiolus Hyacinth Iris (bulbous) (dutch) Narcissus Tulip	Root Rot/ Stem Rot / Bulb Rot (<i>Rhizoctonia solani</i>) (<i>Pellicularia solani</i>) Bulb Rot/ Crown Rot (<i>Sclerotinia rolfsii</i>) (<i>Pellicularia rolfsii</i>) Black Rot (<i>Sclerotinia sclerotiorum</i>)	3 pints (48 fl. oz.)	BULB SOAK: Mix specified amount in 3.2 gals. of water (7.5% concentrations). Add 1% sticker to mixture and maintain good agitation. Soak bulbs for 5 minutes.					

CROP	DISEASE	PRODUCT APPLICATION RATE	APPLICATION DIRECTIONS
Lilies (Easter) (Asiatic) (Oriental)	Root Rot/ Stem Rot (<i>Rhizoctonia solani</i>) (<i>Pellicularia solani</i>) Bulb Rot/ Crown Rot (<i>Sclerotinia rolfsii</i>) (<i>Pellicularia rolfsii</i>) Stem Rot/Black Rot (<i>Sclerotinia sclerotiorum</i>)	6 to 9 pints (96 to 144 fl. oz.)	BULB SOAK: Mix specified amount in 100 gals. of water. A sticking agent may be added. Maintain good agitation in dip tanks. Soak bulbs in mixture for 5 to 15 minutes.
Southern Magnolia Trees**	Magnolia Leaf Spot (<i>Phyllostica cookeri</i>)	3 pints (48 fl. oz.)	FOLIAR SPRAY APPLICATION: Apply specified amount in 100 gallons of water. Add a spreader-sticker at the rate of 1 pint per 100 gallons. Begin applications approximately 1 week before disease normally appears. Apply at least 4 sprays at 2 week intervals. NOTE: Do not use on Magnolia fuscata as injury may result. Single applications must not exceed 33 lbs. A.I. /A, and total seasonal applications must not exceed 66 lbs. A.I. /A. Mixers and Loaders cannot handle more than 150 gallons of product per day (equivalent to 600 lbs. A.I. /day). Applicators cannot apply more than 4.5 gallons of product per day (equivalent to 1.68 lbs. A.I. /day).
Southern Pine Seed or Seedlings**	Root/Stem Rot, Damping Off (<i>Rhizoctonia spp.</i>) (<i>Pellicularia filamentosa</i>) Needle Blight (<i>Dothistromapi ni</i>)	2 pints (32 fl. oz.)	BROAD CAST APPLICATION PRIOR TO PLANTING: Apply specified amount to 1000 sq. ft. in 5-10 gallons of water to insure uniform coverage. Irrigate with an additional 1/2 inch of water following treatment. Seed may be planted immediately following irrigation or within one week of irrigation.

CROP	DISEASE	PRODUCT APPLICATION RATE	APPLICATION DIRECTIONS												
Vegetable Bedding Plants Limited to only Container grown** Broccoli* Brussels Sprouts* Cabbage* Cauliflower* Chinese broccoli* Chinese cabbage* Peppers Tomatoes	Root/Stem Rot, Damping Off (<i>Rhizoctonia solani</i>) (<i>Pellicularia filamentosa</i>)	800 Sq. ft./100 gal 3/8 to 3/4 pints (6 to 12 fl. oz.)	<p>SOIL DRENCH APPLICATIONS: For soil drench applications in the nursery or greenhouse to seedlings grown in containers or beds prior to transplanting into the field. Mix specified amount in 100 gals of water and apply according to the following guidelines:</p> <table><tr><th colspan="3">Soil Depth Coverage for Turfcide 4F Drench Solution</th></tr><tr><th colspan="3">Drench Solution</th></tr><tr><th><u>Inches</u></th><th><u>Fl. oz./Sq. ft.</u></th><th><u>Sq. ft./100gals</u></th></tr><tr><td>2 or less</td><td>16</td><td>800</td></tr></table> <p>For Container Grown Plants: If the spray solution was prepared using 6 fl. oz. of product per 100 gals spray volume, one repeat application may be made with 12 fl. oz. product per 100 gals spray volume 4 to 6 weeks later, if necessary.</p> <p>Do not apply more than 1 pint product per 1000 square feet (20.4 lbs. A.I. /A) per season.</p>	Soil Depth Coverage for Turfcide 4F Drench Solution			Drench Solution			<u>Inches</u>	<u>Fl. oz./Sq. ft.</u>	<u>Sq. ft./100gals</u>	2 or less	16	800
Soil Depth Coverage for Turfcide 4F Drench Solution															
Drench Solution															
<u>Inches</u>	<u>Fl. oz./Sq. ft.</u>	<u>Sq. ft./100gals</u>													
2 or less	16	800													

*For Cole Crop applications, Mixers and Loaders cannot handle more than 150 gallons product per day (equivalent to 600 lbs. A.I. /day). Applicators cannot apply more than 337 gallons of product per day (1,350 lbs. A.I. /day).

**NON-RESIDENTIAL ORNAMENTAL RESTRICTIONS FOR AMOUNT OF PRODUCT HANDLED PER DAY:

- For Non-Residential Ornamentals (Woody Plants, Southern Magnolia Trees, Southern Pine Seed and Seedlings, Vegetable Bedding Plants:
 - Groundboom, airblast, and chemigation applications: mixers/loaders cannot handle more than 190 gallons of product per day (equivalent to 760 lbs. A.I. /day).
 - Groundboom applicators cannot handle more than 425 gallons of product per day ((equivalent to 1,700 lbs. A.I. /day).
 - Soil drench mixer/loader/applicators cannot handle more than 0.42 gallons product per day (equivalent to 1.68 lbs. A.I. /day).

AGRICULTURAL CROPS

USE AND RATE REQUIREMENTS FOR VEGETABLES AND VEGETABLE SEEDLINGS

CROP	DISEASE	QTY PRODUCT PER ACRE	FL. OZ. PRODUCT PER 1,000 FT. OF ROW	APPLICATION DIRECTIONS
Broccoli*, Brussels Sprouts*, Cabbage*, Chinese Broccoli*, Cauliflower*, Chinese Cabbage* (tight-headed varieties only), Collards*, Kale*, Mustard Greens*	Clubroot (<i>Plasmodiophora brassicae</i>)	3 pints	n/a	TRANSPLANT SOLUTION: Mix 3 pints in 100 gals of water. Use 0.5 to 0.75 pint of solution per plant. Base the specific dosage on the severity of the disease infection. Maintain agitation to hold product in suspension. Thoroughly incorporate solution into the soil. Do not exceed 22.5 lbs. of A.I. /A in any one season.
		5.62 gallons	55	BAND APPLICATION: Apply in 25 gals of water per acre or 5.5 fl. oz. per 100 ft. of row based on 40 inch row spacing. Spray as a 12-inch band centered on row and incorporate to a depth of 4 to 6 inches immediately prior to planting. May be used on direct seeded cole crops. Thoroughly incorporate solution into the soil. Do not exceed 22.5 lbs. of A.I. /A in any one season.
		5.62 gallons	n/a	BROADCAST APPLICATION: Apply in 30 gallons of water as a pre-plant broadcast spray prior to planting. Thoroughly incorporate to a depth of 4 to 6 inches using a disc or other suitable equipment. Thoroughly incorporate solution into the soil. Do not exceed 22.5 lbs. of A.I. /A in any one season.
	Wire Stem or Black Rot (<i>Corticium solani</i>)	2.8 to 3.75 gallons	n/a	BROADCAST DRENCH APPLICATION: Apply in 50 gallons of water per acre as a soil drench at the time of or immediately after seeding. Do not exceed 22.5 lbs. of A.I. /A in any one season.
		1.9 to 2.8 gallons	18 to 27	ROW DRENCH TREATMENTS: Apply in 35 gals of water per acre based on 40-inch row spacing. Spray as an 8-

CROP	DISEASE	QTY PRODUCT PER ACRE	FL. OZ. PRODUCT PER 1,000 FT. OF ROW	APPLICATION DIRECTIONS
				<p>inch band centered on the row at time of or immediately after seeding.</p> <p>Do not exceed 22.5 lbs. of A.I. /A in any one season.</p>
Beans (Dry, Snap or Succulent)	Root/Stem Rot (<i>Rhizoctonia solani</i>)	2 to 3 pints (1.5 to 2 pints in AZ and CA)	2.2 to 3.3 (1.7 to 2.2 in AZ and CA)	<p>Apply 2 to 3 pints per acre (1.5 to 2 pints in AZ and CA) based on a 36-inch row spacing. Apply in 8 to 10 gals of water per acre as a directed spray in the seed furrow and to the covering soil at planting time. Use lower rate on lighter soils. Avoid application directly to seed since delayed emergence may occur.</p> <p>Do not exceed 10 lbs. of A.I. /A in any one season.</p>
Beans (Snap or Dry)**	White Mold (<i>Sclerotinia sclerotiorum</i>)	4 pints	4.4	<p>BAND ROW TREATMENT: Apply in 8 to 10 gals of water per acre based on 36-inch row spacing. Apply specified dosage as a spray on 8-inch band centered on a row immediately after or at time of planting. Avoid application directly to seed since delayed emergence may occur. If disease is severe, additional applications may be made at 2 to 3 week intervals directing the spray to the soil at the base of the plants.</p> <p>Do not apply after start of pod formation.</p> <p>Do not feed treated vines to livestock.</p> <p>Do not exceed 10 lbs. of A.I. /A in any one season.</p>

CROP	DISEASE	QTY PRODUCT PER ACRE	FL. OZ. PRODUCT PER 1,000 FT. OF ROW	APPLICATION DIRECTIONS
Garlic†	White Rot (<i>Sclerotium cepivorum</i>)	5 gallons	29	<p>IN-FURROW APPLICATION: Apply in 100 gallons water per acre based on 24-inch row spacing. Apply as an in-furrow spray at planting time. Attach a spray rig to the machine planter and spray 8 to 12-inch band using 2 nozzles per furrow. Direct front nozzle to spray the seed as it is dropped. Direct the rear nozzle to spray the covering soil.</p> <p>Do not exceed 20 lbs. of A.I. /A in any one season.</p> <p>Mixers/loaders cannot handle more than 190 gallons of product per day (equivalent to 760 lbs. A.I. /day)</p>
Peppers, Tomatoes††	Southern Blight (<i>Sclerotium rolfsii</i>)	4.5 to 7.5 pints in 100 gallons of water. Use 0.5 pint of solution per plant.	n/a	<p>TRANSPLANT SOLUTION: Apply at the time of transplanting. The solution should be agitated often to maintain a uniform mixture to assure proper dosage.</p> <p>Do not exceed 7.5 lbs. of A.I. /A in any one season</p> <p>Mixers/loaders/applicators cannot handle more than 0.42 gallons product per day (equivalent to 1.68 lbs. A.I. /day).</p>
		1.2 to 1.875 gallons	10.6 to 16.7	<p>IN-FURROW APPLICATION: Apply in 8 to 10 gals of water per acre based on 36-inch row spacing. Apply as in-furrow sprays to the open "V" trench just prior to planting. When cultivating, set plows as flat as possible to avoid getting untreated soil against stems or plants.</p> <p>Do not exceed 7.5 lbs. of A.I. /A in any one season.</p>
Peanuts	Root/ Stem Rot††† (<i>Rhizoctonia solani</i>)	2 to 4 pints	2.2 to 4.4	<p>PRE-PLANT SOIL MIX: Apply in 8 to 10 gallons of water per acre based on 36-inch row spacing. Apply specified dosage as a spray in 8 to 12-inch band centered on the row and incorporated to a depth of 2 to 4 inches. Application may be made simultaneously with planting.</p>

CROP	DISEASE	QTY PRODUCT PER ACRE	FL. OZ. PRODUCT PER 1,000 FT. OF ROW	APPLICATION DIRECTIONS
				<p><i>At Planting:</i> Apply specified dosage as a directed in-furrow spray to the seed and surrounding soil at planting time.</p> <p>Do not apply within 45 days of harvest. Do not feed treated vines to livestock. Do not allow hogging down of peanuts.</p> <p>Do not exceed 10 lbs. of A.I. /A in any one season.</p> <p>Mixers/loaders cannot handle more than 190 gallons of product per day (equivalent to 760 lbs. A.I. /day).</p>
	Southern Blight (<i>Sclerotium rolfsii</i>)	2.5 gallons	22	<p>AT PEGGING BANDS: Apply 8 to 10 gallons of water per acre based on 36-inch row spacing. Apply specified dosage as a spray in 12-inch band centered on the row so as to cover the crown and pegging zones of the plant. If the row middles are cultivated at the same time, attach 2 spray nozzles (one per side) in front of inside cultivator sweeps.</p> <p>Do not apply within 45 days of harvest. Do not feed treated vines to livestock. Do not allow hogging down of peanuts.</p> <p>Do not move any untreated soil into the area. If necessary, remove inside sweep.</p> <p>Do not exceed 10 lbs. of A.I. /A in any one season.</p> <p>Mixers/loaders cannot handle more than 190 gallons of product per day (equivalent to 760 lbs. A.I. /day).</p>
		6.5 pints	7.2	<p>AT CULTIVATION: Apply in 8 to 10 gallons of water per acre based on 36-inch row spacing. Apply specified dosage at cultivation. Do not apply more than 3 times per crop season. Attach 2 spray nozzles on the inside of the cultivator sweeps (one per side) and adjust so as to treat a total band of 12 inches centered on</p>

CROP	DISEASE	QTY PRODUCT PER ACRE	FL. OZ. PRODUCT PER 1,000 FT. OF ROW	APPLICATION DIRECTIONS
				<p>the row.</p> <p>Do not apply within 45 days of harvest. Do not feed treated vines to livestock. Do not allow hogging down of peanuts.</p> <p>Do not pile untreated soil on crown of plant.</p> <p>Do not exceed 20 lbs. of A.I. /A in any one season.</p> <p>Mixers/loaders cannot handle more than 190 gallons of product per day (equivalent to 760 lbs. A.I. /day)</p>
Potatoes [‡]	Stem Canker/Black Scurf (<i>Rhizoctonia solani</i>)	5 to 10 pints	5.2 to 10.4	<p>BAND APPLICATION: Apply in 10 to 20 gallons of water per acre based on 34-inch row spacing. Spray an 8½-inch band in seed furrow at time of planting. Direct spray into furrow over the seed and cover as a part of the hilling operation during planting.</p> <p>Do not exceed 5 lbs. of A.I. /A in any one season.</p>
	White Mold (<i>Sclerotinia sclerotiorum</i>) Black Dot (<i>Colletotrichum coccodes</i>)	3 to 5 pints (1 pint of Turfside 4F = 0.5 pounds PCNB)		<p>CHEMIGATION APPLICATION: For disease suppression, apply Turfside 4F at the first sign of disease or no later than just prior to or after row closure through sprinkler irrigation equipment in 0.1 to 0.3 inches of water. If disease persists, a second foliar application may be made 10 days or more after the first application and no later than 28 days before harvest. Thorough coverage of the foliage is essential.</p> <p>RESTRICTIONS:</p> <ul style="list-style-type: none"> • Apply by chemigation equipment only. • For use in Idaho, Nevada, Washington and Oregon only. • Do not apply within 28 days of harvest.

CROP	DISEASE	QTY PRODUCT PER ACRE	FL. OZ. PRODUCT PER 1,000 FT. OF ROW	APPLICATION DIRECTIONS
				<ul style="list-style-type: none"> Do not make chemigation applications of Turfcide 4F if Turfcide 4F or other PCNB products were applied as a band application in furrow at planting. Do not exceed a total of 10 pints of Turfcide 4F (5 lbs. PCNB) per acre per year when applied 28 or more days before harvest. Do not make more than 2 foliar applications. <p><u>TANK MIXES</u></p> <ul style="list-style-type: none"> Tank mix Turfcide 4F with other fungicides registered for use on potatoes to enhance and/or extend control of white mold and black dot. Apply 3 to 5 pints of Turfcide 4F per application per acre through chemigation systems in combination (tank-mixed) with any other compatible product. <p>SEE CALIBRATION AND APPLICATION TECHNIQUES IN CHEMIGATION SECTION.</p>

*For Cole Crop applications, Mixers and Loaders cannot handle more than 150 gallons product per day (equivalent to 600 lbs. A.I. /day). Applicators cannot apply more than 337 gallons of product per day (1,350 lbs. A.I. /day). Use on collards, kale and mustard greens restricted to the State of Georgia.

**Not for use in California on Snap or Dry Beans for control of White Mold.

†Not for use in California on Garlic.

†† Not for use in California on Tomatoes.

††† Not for use in California on Peanuts for control of Root/Stem Rot.

‡ For Chemigation applications to potatoes, Mixers and Loaders cannot handle more than 150 gallons of product per day (equivalent to 600 lbs. A.I. /day).

USE AND RATE REQUIREMENTS FOR COTTON

CROP	DISEASE	QTY PER PRODUCT ACRE	FL. OZ. PER 1,000 FT. OF ROW	APPLICATION DIRECTIONS
Cotton	Damping Off (<i>Rhizoctonia solani</i>)	1.5 to 3 pints (2 to 4 pints in AZ and CA).	1.8 to 3.6 (2.4 to 4.8 in AZ and CA)	<p>IN-FURROW APPLICATION: Apply in 5 to 15 gals of water per acre based on 40-inch row spacing. Apply to soil around seed and to the covering soil as it lies in the furrows. Two (2) nozzles work best. Center the front nozzle over the open furrow to spray the soil surrounding the seed. Spray the covering soil from the back nozzle as it fills the furrow. Use the higher rate on heavy soils or when weather conditions are expected to be favorable to rapid germination. Use the higher rate on fields that have a history of disease problems or when minimum or low till programs are utilized.</p> <p>Do not allow livestock to graze or feed on cotton foliage in PCNB-treated fields.</p> <p>Do not exceed 2 lbs. of A.I. /A in any one season.</p>

CHEMIGATION

APPLICATION THROUGH SPRINKLER IRRIGATION EQUIPMENT

In addition to the use rates and directions specified above, the following restrictions must be observed when using this product in any type of irrigations system:

For Ornamentals, apply Turfcide 4F only through the following irrigation systems:

1) Pressurized drench (flood) or drip (trickle), 2) Micro-irrigation such as spaghetti-tube or individual tube irrigation, 3) Hand-held calibrated irrigation equipment such as the hand-held wand with injector, 4) Calibrated overhead watering booms, 5) Ebb and flow or bench flooding sub-irrigation systems.

For Potatoes, apply Turfcide 4F only through overhead sprinklers, including center pivot, solid set or portable (wheel move) irrigation systems.

Do not apply this product through any other type of irrigation system. Crop injury or lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water.

If you have any questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.

Do not connect an irrigation system, (including greenhouse systems), used for pesticide application to a public water system unless the pesticide label prescribed safety devices for public water systems are in place.

A person knowledgeable of the chemigation system and responsible for its operation or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

The system must contain a functional check valve, vacuum relief valve, and a low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.

The pesticide injection pipeline must contain a functional, automatic, quick closing check valve to prevent the flow of fluid back toward the injection pump.

The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.

Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock. Spray mixture in the chemical supply tank must be agitated at all times, otherwise settling and uneven application may occur. Do not apply when wind speed favors drift beyond the area intended for treatment.

SYSTEMS CONNECTED TO PUBLIC WATER SYSTEMS

Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days of the year.

Chemigation systems connected to public water systems must contain a functional, reduced pressure zone (RPZ), backflow preventer or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water systems should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.

The pesticide injection pipeline must contain a functional, automatic, quick closing check valve to prevent the flow of fluid back toward the injection pump.

The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops, or in cases where there is no water pump, when the water pressure decreases to the point where the pesticide distribution is adversely affected.

Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

Do not apply when wind speed favors drift beyond the area intended for treatment.

CALIBRATION AND APPLICATION TECHNIQUES FOR POTATOES

Center Pivot Irrigation Equipment: Operate system and injection equipment at normal pressures recommended by the manufacturer of injection equipment used. Fill tank of injection equipment with water. Operate system for one complete cycle, measuring the time required, amount of water injected and acreage contained in cycle. Mix specified amount of Turfcide 4F for acreage to be covered into the same amount of water used during calibration and inject into system continuously for one revolution. Shut off injection equipment after one revolution, but continue to operate irrigation system until Turfcide 4F has been cleared from the last sprinkler head.

Solid-Set and Portable (Wheel Move) Irrigation Equipment - Determine acreage covered by sprinkler. Fill tank of injection equipment with water and adjust flow to use contents over 10-30 minute period. Mix desired amount of Turfcide 4F for acreage to be covered into quantity of water used during calibration and operate entire system at normal pressures recommended by the manufacturer of injection equipment used for amount of time established during calibration. Inject Turfcide 4F at the end of the irrigation cycle or as a separate application. Stop injection equipment after treatment is complete and continue to operate irrigation system until Turfcide 4F has been cleared from the last sprinkler head.

Do not run irrigation system without safety valves or other devices to prevent back siphoning of Turfcide 4F into water source. Maintain Irrigation water treated with Turfcide 4F on the treated area until the water is absorbed into the soil. Connect the tank containing Turfcide 4F to the suction side of the irrigation pump or other pressurized equipment attached to the irrigation line. Maintain agitation of the diluted Turfcide 4F in the chemical source (or slurry) tank during the entire application period.

IMPORTANT INFORMATION

To protect endangered aquatic species, use one of the following options when applying Turfcide 4F through sprinkler irrigation equipment:

1. Apply only when there is sustained wind away from fish-bearing waters, or
2. Leave a 50 foot untreated buffer between treatment area and fish-bearing waters.

To protect endangered aquatic species, use one of the following options when applying Turfcide 4F through ground equipment:

1. Apply only when there is sustained wind away from fish-bearing waters,
2. Leave a 25 foot untreated buffer between treatment area and fish-bearing waters, or
3. Use low-pressure nozzles according to manufacturer's specifications that produce only coarse or very coarse droplets.

PLANT TOLERANCE:

Neither the manufacturer nor the seller has determined whether or not Turfcide 4F can be used safely on ornamental plants not specified on this label. Prior to any large scale application on such plants, the user should determine the safety of Turfcide 4F by testing a small number of the type of plants to be treated at the labeled rates for that particular group, i.e., bedding plants, foliage, etc. and observing the treated plants over a one to two week period for symptoms of phytotoxicity, which may occur as foliage burn or stunted growth.

STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal.

PESTICIDE STORAGE: Keep container closed when not in use. In case of spill or leak on floor or paved surfaces, soak up with sand, earth or synthetic absorbent. Remove to chemical waste area.

PESTICIDE DISPOSAL: Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

CONTAINER HANDLING:

Non-refillable container: Do not reuse or refill this container.

For containers 5 gallons in size or smaller:

Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

For containers larger than 5 gallons:

Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times.

“Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

LIMITED WARRANTY AND DISCLAIMER

The manufacturer warrants (a) that this product conforms to the chemical description on the label; (b) that this product is reasonably fit for the purposes set forth in the directions for use, subject to the inherent risks referred to herein, when it is used in accordance with such directions; and (c) that the directions, warnings, and other statements on this label are based upon responsible experts' evaluations of reasonable tests of effectiveness, of toxicity to laboratory animals and to plants and residues on food crops, and upon reports of field experience. Tests have not been made on all varieties of food crops and plants, or in all states or under all conditions.

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AMVAC Chemical Corporation
4100 E. Washington Blvd.
Los Angeles, CA 90023 U.S.A.
1-888-462-6822